

## **REMARKS**

### **The Examiner's Claim Rejections under 35 USC § 112**

The Examiner asserts that claims 1-20 "contain subject matter which was not described in the specification in such a way as to enable one of skill in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Independent claims state: "a hydrostatic head of at least 85 mm". In the specification, the applicant only gave the test apparatus but did not give a test method associated with a hydrostatic head measurement."

The use of the term "hydrostatic head" and its measurement are well known in the art as is the TexTest FX 300 Hydrostatic Head Tester which is referenced in the specification at page 18, lines 29-31.

The Examiner's asserts that the wording of claim 16 is inappropriate for an article claim. Claim 16 has been amended according to the Examiner's suggestion.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "**Version with markings to show changes made**".

### **The Examiner's Claim Rejections under 35 USC § 103**

The Examiner rejects claims 1-3 and 5-20 under 35 USC 103(a) as being unpatentable over Roe et al. (6,120,783) in view of Gillespie et al. (5,783,503).

The Examiner states: "Roe, as disclosed above, teaches the use of the barrier cuffs being spunbond polypropylene...but fail to teach the use of a fiber having a denier of less than 1.3."

The Examiner also asserts that Gillespie "teaches the use of microdenier fibers with a denier in the range of from 0.1 to 0.3 denier per filament ...and can be made from polypropylene...and are used in spun bond products...and can be used for such things as topsheets, backsheets and leg cuffs in diapers".

The Gillespie citation discloses multicomponent thermoplastic continuous filaments and methods of making these filaments. It is crucial to the cited process that the filaments have multiple components because, the separation of the larger filaments into the sub-

denier and micro-denier filaments is accomplished without the use of mechanical treatment or high pressure water jets. The filament separation is stated to be accomplished via air pressure or turboelectric energy. The citation states that "The ease with which bicomponent or other multicomponent filament can be formed and then split depends upon several factors, including the miscibility of the components, differences in melting points of the components, crystallization properties, viscosity, conductivity and the ability to develop a triboelectric (sic) charge." (Column 4, lines 54-59) However, nowhere in the citation is there a clear explanation of which melting points, crystallization properties, viscosities etc., should be chosen. A list of "suitable polymers for practice", appears at column 5, lines 4-16, but the list includes many generally utilized polymers.

Gillespie discloses that the filaments can be utilized in diaper leg cuffs and that "Spunbonded webs made from splittable microfilaments of the invention or laminates of these spunbonded webs combined with meltblown fiber webs can be expected to produce fabrics with superior barrier compared to current spunbonded webs and laminates with meltblown." (Column 7, lines 16-20.)

However, there are several factors regarding Gillespie which must be taken into account. First, Gillespie does not disclose the metallocene polypropylene fibers required by the instant claims, as amended. The disclosure of Gillespie is not enabling, with regard to the choice of polymer for producing a nonwoven for leg cuff material. As is known, metallocene catalysts provide polymers with narrow molecular weight distributions. This narrow distribution results in melt rheology allowing small diameter spinnerettes for fiber extrusion. There is nothing in Gillespie that would lead one of skill in the art to such polymers. Gillespie merely teaches a melt temperature that is high enough for extrusion through a "typical" spunbonding spinnerette orifice diameter, while not being too high to damage the lower melting polymer. Such teaching clearly fails to direct one of ordinary skill to metallocene polymers. If one of skill in the art were **given** Roe and Gillespie and instructed to produce absorbent articles with lotion on the cuffs, the cuffs might possibly be spunbonded microfiber webs. However, there is nothing in Gillespie to direct the artisan to the metallocene polypropylene fibers of the instant invention nor which would motivate one of skill in the art to choose such fibers. The absorbent articles, therefore

would not be those of the instant claims, as amended, and the instant invention is not obvious in light of the citations.

Finally, while the instant application seeks to eliminate meltblown fibers or to include them at low levels in a spunbonded layer, Gillespie still utilizes meltblown fibers as a separate layer.

The Examiner also rejects, claims 1, 2, 5, 6, and 17-19 under U.S.C. 103(a) as being unpatentable over Lawson (4,695,278) in view of Gillespie et al. (5,783,503).

Lawson discloses an integral disposable absorbent article having at least one elastically contractible gasketing cuff and at least one barrier cuff. The combination of Lawson and Gillespie does not render the instant application obvious for the same reasons as the combination of Roe and Gillespie, discussed above.

The Examiner rejects claims 7-16 and 20 over Lawson in view of Gillespie and further in view of Roe.

The Gillespie reference teaches the production of sub-denier and micro-denier filaments and that such filaments can be used to produce nonwoven fabrics which can be used as leg cuff materials. However, there is no motivation in a reading of Gillespie to choose the metallocene polypropylene fibers required by the instant claims, nor any way to determine which of the general classes of polymers would provide appropriate filaments.

Lastly, the Examiner rejects claim 4 under 35 U.S.C. 103(a) as being unpatentable over Lawson in view of Gillespie and further in view of Shultz et al. (6,103,647).

Shultz discloses a laminate having at least one layer of meltblown elastic fibers bonded on either side with a layer of soft non-elastic fibers of greater than 7 microns in average diameter. The laminate have a drape stiffness less than half of a similar fabric having a layer of meltblown non-elastic fibers in place of the layer of meltblown elastic fibers.

Shultz, as disclosed and claimed, requires a laminate having a hydrohead of at least 10 millibars and the presence of at least one layer of meltblown elastic olefin polymer fibers thermally bonded on at least one side with a layer of soft fibers of a nonelastic material greater than 7 microns in average diameter.

The goal of the instant invention is to produce a nonwoven which has no or a minimum level of meltblown fibers. The instant specification at page 19, lines 9-15, states:

"For example, the preferred SS metallocene polypropylene barrier cuff material causes less red marking than currently used spunbonded-meltblown-spunbonded (SMS) leg materials, using polypropylene materials. This is a surprising discovery, as it was believed that the meltblown layer of the SMS structure was necessary to provide for barrier properties to prevent leakage." The citation, therefore, teaches away from the instant structure and a reading of Schultz, whether it includes the possibility of using spunbonded metallocene polymer somewhere in the structure or not, certainly would not lead one of skill in the art to the instant structure.

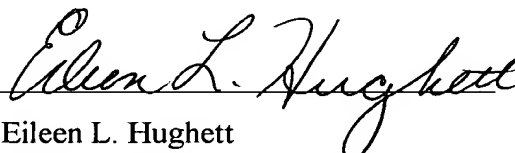
### CONCLUSION

For the foregoing reasons, Applicants respectfully submit that the applied references and reference combinations do not disclose or render obvious claims 1-20. In addition, the objection under 35 U.S.C. 112, first paragraph should be obviated by the remarks. The objection under 35 U.S.C. 112, second paragraph should be obviated by the amendment to claim 16. Accordingly, favorable reconsideration of claims 1-20 is earnestly solicited in the form of a Notice of Allowance.

Should any issues impeding continuing examination of this Application remain, the Examiner is encouraged to contact the undersigned by telephone at the earliest possible date to achieve a timely resolution.

Respectfully submitted

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE****In the Claims**

Please amend claim 1 to read as follows:

1. An absorbent article to be worn by a wearer adjacent the skin, the absorbent article comprising:  
a chassis comprising:  
an outer covering layer comprising:  
a backsheet; and  
a liquid pervious topsheet joined to said backsheet; and  
an absorbent core positioned between said topsheet and said backsheet;  
  
a nonwoven cuff joined to said chassis, wherein each said nonwoven cuff has a first surface and a second surface disposed opposite said first surface, said nonwoven cuff comprising metallocene polypropylene spunbond fibers which have a denier less than about 1.3 and a hydrostatic head of at least about 85 mm.

Please amend claim 16 to read as follows:

16. The absorbent article of Claim 13 wherein said skin care composition is capable of being transferred from said first surface to said second surface.